

Amendments to the Claims:

This listing of claims will replace all prior listings of claims in the application:

Listing of Claims:

1. (currently amended) A transgenic knockout mouse whose genome comprises a disruption in each allele of the mouse's endogenous melanopsin gene, wherein the disruption in each allele prevents the expression of a functional melanopsin protein in cells of the mouse and the mouse exhibits an attenuated circadian rhythm phase-shift in response to a light pulse during a dark portion of an environmental dark/light cycle.

2. (cancelled)

3. (cancelled)

4. (currently amended) A cell isolated from the transgenic knockout mouse of claim 1, ~~wherein the genome of the cell comprises a disruption in its endogenous melanopsin gene, and wherein the homozygous disruption in each allele prevents the expression of a functional melanopsin protein in said cell.~~

5. (currently amended) A method for identifying a therapeutic agent for modulating circadian rhythm in a mammal, the method comprising:

administering an agent to a transgenic knockout ~~animal mouse of claim 1 whose genome comprises a disruption in its endogenous melanopsin gene, wherein the disruption prevents the expression of a functional melanopsin protein in cells of the animal and the animal comprises a homozygous disruption of the melanopsin gene;~~ and

selecting an agent that modulates the circadian rhythm phase-shift response of the mouse to a light pulse during a dark portion of an environmental dark/light cycle regulation of circadian rhythm in the animal.

6. (cancelled)

7. (original) The method of claim 5, wherein the selecting step comprises selecting an agent that enhances the circadian rhythm phase-shift response to a light pulse during a dark portion of an environmental dark/light cycle.

8.-21. (cancelled)